TECHNICAL DATA SHEET

Revision: June 1, 2022
Supersedes: July 27, 2015
Ref. #: 253871

MULTI-PURPOSE CONSTRUCTION ADHESIVE

QB300

HEAVY DUTY SHEAR & CONSTRUCTION ADHESIVE

DESCRIPTION

OSI® QB-300 Multi-Purpose Construction Adhesive is specially designed for the bonding and installation of most types of plastic foam panels including extruded polystyrene (XPS) foam insulation, expanded polystyrene (EPS) foam insulation, and polyisocyanurate known as Polyiso (PIR) foam insulation. Will not attack polystyrene foam when used as directed.

Available as:

Item #	Package	Size
827628	Paper Cartridge	28 fl. oz. (828 ml)
827629 (MTO)	Metal pail	5 gal. (18.9 L)

FEATURES & BENEFITS

- High Initial Grab Minimizes Nailing
- Interior/Exterior Application
- Bridges Minor Gaps on irregular surfaces up to 1/4”
- Will Not Stain, Bleed or Blister Most Surfaces

RECOMMENDED FOR

QB-300 is highly recommended for use on vinyl covered gypsum panels because it does not cause staining, bleeding, or blistering of the finished surfaces. This adhesive provides excellent initial tack and bond development to most foam insulation panels and most other building materials including wood, fiberboard, drywall/gypsum board, certain types of metals, unsealed masonry, concrete, brick, marble, and FRP panels. For best results, one bonding surface should be porous

LIMITATIONS

- Do not use on polyethylene or polypropylene “film-faced” foam insulation panels
- Will not bond to polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE)
- One surface should be porous. Not recommended for bonding two non-porous surfaces
- Do not use where surface temperatures can exceed 90°F prior to curing. May cause foamboard cavitation
- Not recommended on weather resistant barriers (WRB). May cause damage or bond failure to occur.
- Do not use for applications requiring temperature resistance greater than 170°F (77°C)
- Do not use in overhead roofing applications or on metal sidewalls without proper insulation clips.
- *Test adhesion to treated wood before starting any project. Treatments vary widely and can adversely impact adhesive bond and performance

COVERAGE

For a 28 fl. oz. (828 ml) cartridge:

- A 1/4” (6 mm) bead extrudes approximately 86 ft. (26 m)
- A 3/8” (9.5 mm) bead extrudes approximately 38 ft. (12m)

For a 5-gallon pail:

- **Spot method:** approx. 200 sq. ft./gallon
- **Trowel method:** approx. 50-60 sq. ft./gallon based on 1/4" notched trowel

TECHNICAL DATA

Typical Uncured Physical Properties

Color:	Light Tan
Appearance:	Liquid – paste like
Base:	Synthetic rubber and resins Formaldehyde free
Viscosity:	280,000 - 400,000 cps
Specific Gravity:	1.369
Flashpoint:	0.04 °F (-17.80 °C) no method
% Solids by Weight:	80%
VOC Content:	20 % by weight (CARB) 280 g/L (SCAQMD)
Shelf Life:	18 months from date of manufacture (unopened)
Lot Code Explanation:	YYDDD

YY = Last Two Digits of Year of Manufacture
DDD = Day of Manufacture based on 365 days per year
For example: 22061 = March 2, 2022

Typical Application Properties

Application Temperature:	Apply between 20°F (-18°C) and 90°F (32°C) for optimal performance For best results, store adhesive at 70°F (21°C) 24 hours before use
Odor:	Slightly, mineral-oil-like *(Solvent - use in a well-ventilated area)*
Open Time:	~30 minutes***** at 78°F (25°C) / 50% RH
Venting Time:	2 – 5 minutes
Repositioning Time:	10 - 20 minutes
Vertical Sag:	0.125 inches ASTM C639
Cure Time:	24 – 48 hours*
Full Cure **::	2 – 7 days***** at 78°F (25°C) and 50% RH *Time is dependent upon temperature, humidity, porosity of substrate and amount of adhesive used
Clean Up:	Clean up uncured adhesive residue with mineral spirits. Scrape away cured adhesive using a sharp-edged tool.

***** Time is dependent upon temperature, humidity, porosity of substrate and amount of adhesive used
****** Cure time is significantly increased in cold temperatures and/or low humidity conditions

Typical Cured Performance Properties

Color:	Light Tan
Cured Form:	Non-flammable solid
Bridging capabilities:	Up to 1/4”
Service Temperature:	-20°F (-29°C) to 180°F (82°C)
Water Resistant:	Yes
Sandable:	No

Shear Strength ASTM C557: Gypsum to Wood

24 hours @ 73°F	40 psi
14 days @ 73°F	42 psi

Tensile Strength ASTM C557: Gypsum to Wood

24 hours @ 73°F	29 psi
14 days @ 73°F	32 psi

Specifications:

Meets and exceeds the following specifications

- ASTM C557 *(Gypsum Wallboard to Wood framing)*
- Tested in accordance with ASTM E84 *(Surface Burning Characteristics of Building Materials)*

DIRECTIONS

Tools Typically Required:
Utility knife, caulking gun, and long thin tool to puncture cartridge seal, or recommended trowel for pails.

Safety Precautions:
Wear gloves to avoid skin contact. Wash hands after use. Interior applications require ventilation to the outside during application and cure.

DIRECTIONS

Preparation:

Apply and cure between 20°F (-7°C) to 100°F (38°C). For best performance, use at temperatures greater than 65°F (18°C). Surfaces must be clean, dry, and free of frost, grease, dust, release agents and other contaminants. To obtain maximum adhesion, surfaces should be flat and close fitting to provide adequate contact. Release agents must be removed from poured concrete. Newly poured concrete must be allowed to cure 28 days prior to adhesive application. Painted surfaces must be well cured and free of loose paint. Cut nozzle to desired bead size and puncture inner seal.

General Application Guidelines:

Apply no more adhesive than can be used in 25 minutes. After adhesive application, position board in place and press firmly over entire surface. Immediately pull away for approximately 2 minutes to allow the solvents to flash off. Reposition panel and press firmly into place. Repeat as necessary to increase initial tact and release excess solvent vapors. Use temporary bracing or blocking until adhesive sets. Adequate ventilation must be provided when used in all interior applications. ***NOTE:*** Do not allow a heavy film to form on surface of the adhesive. If the adhesive dries or skins over, it must be scraped off, and fresh adhesive needs to be applied.

Application Methods:

1. **Extruded Bead Method:**
   For relatively smooth and level surfaces, apply a 3/8" round bead of adhesive the full length of a sheet of foam board 1" in from the edge. Then run an "X" bead from corner to corner through the field of the board. ***NOTE:*** Do not apply adhesive around the entire perimeter with a continuous bead.
   Alternate Method: Apply parallel beads 12 to 16" on center the full length of the foam board. For applications involving wood or metal framing members, apply a 3/8" continuous bead on each framing member. This method is easiest and most widely used in the industry.
2. **Spot Method:**
   This method works best for rough surfaces. Using a putty knife apply spots of adhesive to the surface of the board beginning at one corner and spacing the spots 8 to 12" on the center. Each spot of adhesive should be at least 1" across by ¾" high. Do not use this method on wood or metal studs.
3. **Trowel Method:**
   For greater surface contact and holding power, apply adhesive using a ¼" deep notched trowel over entire surface of the foam board or paneling, 1" in from the edges. This method is recommended for all specialty applications where almost immediate holding power is desired.

Applications:

- Bonding Foam to Block or Concrete Walls and Ceilings:

  Using one of the application methods mentioned above, press foam board tightly to surface within 10 minutes after adhesive has been applied. Use firm pressure over entire surface of board. Pull foam board away for approximately 2-5 minutes to allow solvents to flash off. Reposition foam and press firmly over entire surface to ensure proper bond. To speed up initial bonding power, repeat procedure as needed. Be sure to butt all joints snug and plan application so that the joints of the finished material do not coincide with the foam joints. When bonding foam to ceilings, supplemental mechanical fasteners are required to hold foam in place until adhesive sets. Use at least 4 to 6 fasteners per 8-foot sheet of board depending on weight. Supplemental mechanical fasteners are required when the wall or foam board exceeds 8 ft. in height for all wall applications. ***NOTE:*** Furring strips are recommended to be incorporated if the wall will be finished with drywall or paneling

- Bonding Drywall, Vinyl Board or Paneling to Foam:

  When bonding "pre-finished" materials to foam, it is recommended that the extruded bead method or trowel method be used. For bonding drywall to foam, use one of these two methods depending on job specifications and requirements along with the Adhesive Nail-On Attachment Method. Press drywall firmly into place and perimeter nail 16" O.C. and 24" O.C. in the field of the board. Use permanent mechanical fasteners at least twice as long as the thickness of the foam to securely fasten drywall to the concrete, block wall or furring strips.

  When bonding vinyl board or paneling to foam, it is recommended that these pre-finished materials be "bowed" or pre-curved 24 hours prior to installation. Position boards within 10 minutes after adhesive application and press firmly into place. Pull board away for approximately 2 minutes to allow solvents to flash off. Reposition foam and press firmly over entire surface to ensure proper bond. Repeat as necessary. Mechanical fasteners are required at the top and bottom of the panels where moldings will be used. Temporary bracing or fasteners may be needed for at least 24 hours until the adhesive sets. Excess adhesive should be removed immediately.

DIRECTIONS

- Bonding Vinyl Covered Gypsum Board or Paneling to Wood or Metal Studs:

  Apply a ¼" to 3/8" continuous bead of adhesive to each stud or framing member starting 3" down from the top of the stud and ending 3" from the bottom. Pre-decorated panels should be "bowed" or pre-curved prior to installation. Place panels in proper position and press firmly to framing members. Pull board away for approximately 2 minutes to allow solvents to flash off. Repeat as needed. Reposition panels and press firmly along each adhesive bead to ensure proper contact. Use mechanical fasteners at the top and bottom of each pre-decorated panel. Use of temporary bracing for at least 24 hours may be necessary until adhesive sets.

- Insulated Panels for Low Temperature Structures (Includes walls, ceilings, and floors):

  Follow detailed installation procedures of the panel manufacturer when using adhesive. In all cases adhesive should be "flashed off" to ensure maximum grab and bonding power, especially in enclosed locations. This product is not USDA/FDA approved

- Tilt Wall Construction:
  Using either the Spot Method or the Trowel Method, install each 2'x4' foam panel horizontally. Be sure to stagger all joints. Mechanical fasteners are required for this application and should be installed at each corner of a 2'x4' section and at least one in the field or center of each foam panel.

Clean-up:
Clean tools and uncured adhesive residue immediately with mineral spirits. Cured adhesive may be carefully cut away with a sharp-edged tool.

STORAGE & DISPOSAL

NOT DAMAGED BY FREEZING. For best results, store product at 70°F ± 5°F and <50% relative humidity. Store away from heat, flame, and sparks. Take unwanted product to an approved hazardous waste facility. Hardened material may be disposed of with household trash.

LABEL PRECAUTIONS

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF INHALED OR SWALLOWED. EYE, SKIN AND RESPIRATORY IRRITANT.

DANGER! Contains petroleum distillate, rosin ester, n-hexane, and crystalline silica. **EXTREMELY FLAMMABLE.** Vapors may ignite explosively. Do not use or store near heat, sparks or open flame. Do not smoke when using this product. Extinguish all flames and pilot lights and turn off all sources of ignition, including stoves, heaters and electric motors during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation. Use in a well-ventilated area. Avoid breathing vapors. Avoid contact with eyes and skin. Prolonged or repeated exposure to hexane can cause nerve damage to extremities which may be permanent. Do not take internally. **FIRST AID:** If swallowed do not induce vomiting, call a physician or Poison Control center immediately. For eye contact flush with water for 15 minutes, call a physician. For skin contact wash thoroughly with soap and water. If overcome by vapors, get fresh air. **KEEP OUT OF THE REACH OF CHILDREN.**

NOTICE: Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain, nervous system, Liver and kidney damage or may cause cardiac arrhythmia. INTENTIONAL MISUSE BY DILIBERATRLY INHAHLING THE CONTENTS MAT BE HARMFUL OR FATAL.

WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov.

Refer to the Safety Data Sheet (SDS) for further information.

LIMITED WARRANTY

This product is warranted by Henkel Corporation to be free from defects in materials when used as directed. Henkel's sole obligation shall be, at its option, to replace or refund the purchase price of product proven to be defective. Henkel makes no other warranty – express or implied – including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE and will not be liable for consequential or incidental damages. This Limited Warranty gives you specific legal rights, which vary from state to state. For warranty assistance, contact Henkel at 1.800.624.7767 M-F 9:00 am to 4:00 pm ET.

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OSI Tougher than the Elements. For Professional Use Only. The Battle will be Fierce.
OSI works side by side with residential builders, contractors and remodeling professionals who use our products every day on their jobsites. OSI combines this deep understanding with the sophisticated global innovation and manufacturing excellence of Henkel to make the world's best professional-grade caulks, sealants and adhesives.

For Technical Assistance call: 1-800-624-7767 Mon – Fri 9:00am – 4:00pm ET
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